CLAIMS

1. An apparatus (100), comprising modulating means (20) for performing multi-carrier modulations characterized in that it further comprises:

power amplifying means (50) for amplifying a transmission signal; and

processing means (10) for controlling said power amplifying means (50) based on a type of digital modulation associated with said transmission signal.

2. The apparatus (100) of claim 1, further comprising signal transmitting means (70) for wirelessly transmitting said transmission signal.

3. The apparatus (100) of claim 1, wherein said processing means (10) controls a bias current associated with said power amplifying means (50).

4. The apparatus (100) of claim 1, wherein said type of digital modulation includes one of:

bi-phase shift keyed (BPSK) modulation;

quadrature phase shift keyed (QPSK) modulation; and

quadrature amplitude modulation (QAM).

5. The apparatus (100) of claim 1, further comprising modulating means (20) for performing a plurality of different types of digital modulation.

6. The apparatus (100) of claim 1, wherein said transmitter apparatus (100) is part of a mobile transceiver having a battery power supply.

7. A method (400) for controlling a transmitter apparatus (100), comprising:

identifying a type of digital modulation for a transmission signal (410); and

controlling power amplification of said transmission signal based on said type of digital modulation (440).

8. The method (400) of claim 7, further comprised of wirelessly transmitting said transmission signal (450).

9. The method (400) of claim 7, wherein said power amplification is controlled by steps comprising:

retrieving a digital value corresponding to said type of digital modulation (420);

converting said digital value to an analog signal (430); and

using said analog signal to control a bias current associated with a power amplifier (50) which amplifies said transmission signal (440).

10. The method (400) of claim 9, characterized in that said digital value is computed from the crest factor.

11. The method according to claim 10 characterized in that bias current is decreased when decreasing the efficiency per bit of digital modulation and increased when increasing the efficiency per bit of digital modulation.

12. The method according to any of claims 10 and 11 characterized in that bias current is decreased when digital modulation is changed from 64 QAM ¾ to BPSK ½ .

13. The method according to any of claims 9 to 12 characterized in that it is in compliance with one of the standards belonging to the set comprising:

- Hiperlan type 2;

- IEEE 802.11a;
- DVB-T
- 802.16a

14. The method (400) of claim 7, wherein said type of digital modulation includes one of:

bi-phase shift keyed (BPSK) modulation;

quadrature phase shift keyed (QPSK) modulation; and

quadrature amplitude modulation (QAM).

15. The method (400) of claim 7, wherein said transmitter apparatus (100) is part of a mobile transceiver having a battery power supply.

16. An apparatus (100), comprising:

a power amplifier (50) operative to amplify a transmission signal; and

a processor (10) operative to control said power amplifier (50) based on a type of digital modulation associated with said transmission signal.

17. The apparatus (100) of claim 16, further comprising a signal transmitting element (70) operative to wirelessly transmit said transmission signal.

18. The apparatus (100) of claim 16, wherein said processor (10) controls a bias current associated with said power amplifier (50).

19. The apparatus (100) of claim 16, wherein said type of digital modulation includes one of:

bi-phase shift keyed (BPSK) modulation;

quadrature phase shift keyed (QPSK) modulation; and

quadrature amplitude modulation (QAM).

20. The apparatus (100) of claim 16, further comprising a modulator (20) operative to perform a plurality of different types of digital modulation.

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21. The apparatus (100) of claim 16, wherein said apparatus (100) is embodied as a mobile transceiver having a battery power supply.